

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

1. – 58. (canceled)

59. (Currently Amended) A plant expression cassette , wherein said expression cassette expresses ~~allowing~~ in-seed , with tissue specific expression , [[of]] a non-degraded human lactoferrin ~~wherein~~ , said cassette comprising a gene encoding [[the]] human lactoferrin [[is]] , said gene being operatively linked to ~~a regulation element of DNA sequences coding for the promoter and the leader sequence of soybean protein 7S basic globulin 7S or to a regulation element of protein β -conglycinine.~~

60. (Canceled)

61. (Currently Amended) The plant expression cassette according to claim [[60]] 59, wherein said promoter has the sequence reported in the annexed sequence listing as SEQ. ID NO 21.

62. (Canceled)

63. (Currently Amended) The plant expression cassette according to claim [[62]] 59 wherein said leader sequence is the sequence reported as SEQ. ID NO: 13.

64. – 67. (Canceled)

68. (Previously presented) The plant expression cassette of claim 59 wherein said gene encoding the human lactoferrin has the sequence reported as SEQ ID NO: 1.

69. (Previously presented) A recombinant DNA vector comprising the plant expression cassette of claim 59.

70. (Canceled)

71. (Currently Amended) The recombinant DNA vector according to claim [[70]] 69, wherein said promoter has the sequence reported in the annexed sequence listing as SEQ. ID NO 21.

72. (Canceled)

73. (Currently Amended) The recombinant DNA vector according to claim [[72]] 69 wherein said leader sequence [[is]] has the sequence reported as SEQ. ID NO: 13.

74. – 77. (Canceled)

78. (Currently Amended) The recombinant DNA vector according to claim 69, wherein said ~~plant expression cassette includes the~~ gene coding for human lactoferrin ~~having~~ has SEQ ID NO: 1.

79. (Currently Amended) A method for using the vector according to claim 69 for the transformation of vegetal cells comprising:

transferring said vector in competent agrobacterium cells; and
transforming said vegetal cells with the agrobacterium cells obtained from said
transferring.

80. (Previously presented) A vegetal cell including the vector of claim 69.

81. (Currently Amended) A cellular aggregation ~~obtainable~~ obtained from cells according to claim 80.

82. (Currently Amended) The cellular aggregation according to claim 81 wherein said aggregation~~[[s]] are calluses~~ is a callus, and wherein said callus is capable of regenerating a transgenic plant~~[[s]]~~.

83. (Previously presented) A transgenic plant, comprising the expression cassette of claim 59, said plant expressing in-seed the non-degraded protein human lactoferrin.

84. (Currently Amended) The transgenic plant according to claim 83, said plant being selected from the group consisting of solanaceae, cereals and leguminosae ~~, fruit bearing plants and horticultural plants.~~

85. (Previously presented) The transgenic plant according to claim 84, said plant being selected from the group consisting of soya, tobacco and rice.

86. – 90. (canceled)

91. (New) A method for using the vector according to claim 69 for transformation of vegetal cells comprising:

subjecting said cells to bombing with a suitable biolistic system; and
biolistically transforming said cells with said vector.

92. (New) A method for production of human lactoferrin extracts comprising:

collecting the seeds of the transgenic plant according to claim 83; and
extracting human lactoferrin from said seeds.

93. (New) A method of using the transgenic plant according to claim 83 for the production of non-degraded human lactoferrin comprising:

extracting said non-degraded human lactoferrin from seeds of said plant.

94. (New) A method for the production of human lactoferrin-containing flours

comprising:

collecting the seeds of the transgenic plant according to claim 83; and
grinding said seeds.

95. (New) A method for the production of functional foods containing human lactoferrin comprising:

collecting the seeds of the transgenic plant according to claim 83; and
introducing said seeds or products of said seeds in food preparations.

96. (New) The method according to Claim 88, wherein said functional foods are selected from the group consisting of vegetal milks, fruit juices, fruit and/or vegetable homogenized foods.

97. (New) The transgenic plant of claim 83 as nutraceutical comprising human lactoferrin.

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